NEVADA DIVISION OF ENVIRONMENTAL PROTECTION
FACT SHEET
(Pursuant to NAC 445A.236)

Permittee Caesar's Palace Hotel Casino
3750 Las Vegas Blvd South
Las Vegas NV 89109

Permit No. NV0023191

Facility Two dewatering treatment systems at Caesar's Palace Hotel Casino at the northwest corner of the intersection of Las Vegas Blvd South and Flamingo Rd
Latitude 36º 06' 58" N
Longitude 115º 10' 04" W
T21S R61E S17

General This site has been undergoing structural dewatering for several years due to below grade portions of the parking garage and Forum Shops. The water is collected via passive drains at each location and discharged to the storm drain. Treatment is required due to low levels of organic contamination, principally tetrachloroethene (or perchloroethene - PCE). The extent and source is unknown and is currently being investigated by the Division's Bureau of Corrective Actions. A portion of the site was previously occupied by a gas station. Treatment is via sediment filtration and carbon adsorption.

Receiving Water Characteristics The storm drain discharges to Flamingo Wash, and the standards set at the nearest downstream control point, "Las Vegas Wash at Telephone Line Road" (NAC 445A.199), apply. In addition, the state wide standards for toxic materials, NAC445A.144, are applicable, and Total Maximum Daily Loads (TMDLs) for Las Vegas Wash have been established for total phosphorus and ammonia.

Rationale for Permit Requirements The monitoring requirements, discharge limits, and a summary of the data collected under the previous permit from June 2006 through September 2007 are presented in the two tables below and form the basis for the discussion that follows.

Table I.A.1 Discharge Limitations

Parameter	**Discharge Limitation**	**Monitoring Requirements**		
		Location [1]	Frequency	Sample Type
Flow, parking garage (001)	288,000 gpd	iii	continuous	meter
Flow, Forum Shops (002)	144,000 gpd	iii	continuous	meter
TPH (C6 - C40)	1 mg/l	ii	quarterly	discrete
EPA 8260 [2]	m&r µg/l	i, ii	quarterly	discrete
Trichloroethene (TCE)	5 µg/l	ii	quarterly	discrete
Tetrachloroethene (PCE)	5 µg/l	ii	quarterly	discrete
MTBE [3]	20 µg/l	ii	quarterly	discrete
Benzene	5 µg/l	ii	quarterly	discrete
Toluene	100 µg/l	ii	quarterly	discrete
Ethylbenzene	100 µg/l	ii	quarterly	discrete
Xylenes (total)	200 µg/l	ii	quarterly	discrete
Total Inorganic Nitrogen	m&r mg/l	ii	quarterly	discrete
NH3 as N	m&r mg/l	ii	quarterly	discrete
NO2 + NO3 as N	m&r mg/l	ii	quarterly	discrete
Total Phosphorus	m&r mg/l	ii	quarterly	discrete
pH	6.5 to 9 su	ii	quarterly	discrete
TDS	m&r mg/l	ii	quarterly	discrete
Metals [4]	m&r mg/l	ii	quarterly	discrete

m&r = monitor & report, i = influent to treatment system, ii = influent to final carbon canister, iii = treatment system effluent

1. This table applies to both treatment systems; parking garage (Outfall 001) and Forum Shops (Outfall 002). Results shall be reported separately.
2. Full range, report all parameters. This will include the organics listed below this entry in the table.
3. Methyl tert-butyl ether
4. Analyses shall include antimony, arsenic, barium, beryllium, boron, cadmium, calcium, chromium, copper, fluoride, iron, lead, magnesium, manganese, mercury, molybdenum, nickel, selenium, silver, thallium, zinc, and hardness as calcium carbonate. Analyses shall be for total metals.

Discharge Data Compilation
January 2006 through September 2007
mg/l, except as noted

Parameter	Count	Min	Avg	Max	Criteria
Parking Garage					
flow, gpd (001)	19	4,000	22,947	47,000	
TIN	15	0.36	7.61	12.30	20
NH3	8	0.10	0.94	4.0	
NO2 + NO3	14	0.39	7.61	11	
pH, su	15	**6.40**	7.25	7.70	6.5 - 9
TDS	15	**1,920**	**2,399**	**3,200**	1,900
TP	3	0.021	4.697	14	
GRO	1	**1.7**	**1.7**	**1.7**	1
DRO	4	0.29	0.59	**1.1**	1
ORO	1	**4.3**	**4.3**	**4.3**	1
PCE, µg/l	4	4.4	**6.1**	**7.6**	5
Forum Shops					
flow, gpd (002)	20	70	2,164	14,000	
TIN	15	0.40	5.32	18.76	20
NH3	8	0.079	1.184	5.7	
NO2 + NO3	14	0.096	5.025	18	
pH, su	16	6.90	7.30	7.60	6.5 - 9
TDS	16	1,730	**2,798**	**3,300**	1,900
TP	11	0.033	0.180	0.70	
DRO	2	0.88	**2.19**	**4**	1
ORO	1	**2.7**	**2.7**	**2.7**	1
PCE, ug/l	4	1.0	**5.1**	**7.9**	5

Count = # detections or measurements

FLOW, 288,000 (001), 144,000 (002), gpd: Flow data is necessary for determining impacts to the receiving water from the various constituents present. The limits are based on the capacities of the treatment systems. The average total from the discharge data is approximately 25,000 gpd.

TPH (C6 - C40), 1 mg/l: Total petroleum hydrocarbons, full range. This is a technology based limit. This analysis is included because it covers a wide range of potential pollutants, although it's usefulness is

limited by relatively high detection limits. TPH is typically split up as gasoline range organics (GRO) C6 - C12, diesel range organics (DRO) C12 - C28, and oil range organics (ORO) C28 - C40. Although the permit limit applies to the total of all three fractions, those values were not reported by the lab.

EPA 8260, full range, influent and effluent, report all parameters. Similar in purpose to the TPH analysis but with much lower detection limits. The results will include the organic constituents below. A limited number of influent analyses were conducted under the previous permit. Some BTEX detections have been reported by Corrective Actions. The influent sampling frequency has been increased from annual to quarterly in an effort to obtain a more representative data set.

- TRICHLOROETHENE (TCE), 5 µg/l: This is the toxics standard for the municipal or domestic supply beneficial use.

- TETRACHLOROETHENE (PERCHLOROETHENE, PCE), 5 µg/l: This is the Maximum Contaminant Level (MCL) for drinking water. PCE was detected four times in both outfalls at an averge concentration of approximately 5 µg/l.

- METHYL TERT-BUTYL ETHER (MTBE), 20 µg/l: This limit is taken from the Corrective Action program, and is based on taste and odor considerations.

- BENZENE, 5 µg/l: This is the toxics standard for the municipal or domestic supply beneficial use.

- TOLUENE, 100 µg/l: Toluene is methyl benzene. This technology based limit is used instead of the toxic standard (14,300 µg/l) since it's easily achievable.

- ETHYLBENZENE, 100 µg/l: This technology based limit is used instead of the toxic standard (1,400 µg/l) since it's easily achievable.

- XYLENES (TOTAL), 200 µg/l: This is a technology based limit. Total xylenes consist of the three isomers of dimethyl benzene.

TOTAL INORGANIC NITROGEN (TIN), m&r: This is included because of the control point standard of 20 mg/l, which is based on existing

quality. The average concentration from the discharge data is 5.32 mg/l. TIN is determined from the sum of separate analyses for nitrite, nitrate, and ammonia. Limits haven't been used because these compounds aren't targeted or significantly attenuated by the treatment processes in place.

AMMONIA (NH3) as NITROGEN, m&r: This is included because it's part of the TIN analysis, and because of the TMDL, which is 970 lb/day. At 25,111 gpd and 0.961 mg/l, the contribution from this source would be 0.201 lb/day.

NITRITE (NO2) + NITRATE (NO3) as NITROGEN, m&r: This is included because it's part of the TIN analysis.

TOTAL PHOSPHORUS, m&r: This is included because of the TMDL, which is 434 lb/day. At 25,111 gpd and 4.308 mg/l, the contribution from this source would be 0.903 lb/day.

pH, 6.5 - 9.0, standard units: This is the control point standard, based on beneficial uses. Although not controlled by the treatment processes, an excursion would represent some type of mishap and could be corrected fairly easily.

TDS, m&r: This is included because of existing salinity impacts in the Colorado River basin. The average concentration from the discharge is approximately 2400 mg/l. The control point standard is 1900 mg/l, based on existing quality. This parameter is not limited based on natural occurrence, dilution, and difficulty of treatment.

METALS, monitor & report: These are of interest because of their environmental effects in general. They're not limited based on natural occurrence, dilution, and difficulty of treatment. These analyses were not conducted under the previous permit.

Changes from the Previous Permit

Please see the previous section for additional details.

Overall sampling frequency has been reduced from monthly to quarterly. Full range 8260 analyses are now specified for the effluent, with the influent frequency increased from annual to quarterly. Limits have been added for additional 8260 components. Metals analyses

have been added. The TIN limit has been removed, and the requirement to report the components has been added.

Procedures for Public Comment Notice of the Division's intent to renew discharge permit NV0023191 as described here is being sent to the Las Vegas Review Journal for publication and mailed to interested persons on our mailing list. Anyone wishing to comment on the proposed permit must submit written comments to the Division within (30) days of the publication date. The comment period can be extended at the discretion of the Administrator. The deadline for comments is 5:00 pm Monday, June 9, 2008, although letters postmarked on that date will also be accepted.

A public hearing on the proposed determination can be requested by the applicant, any affected state or interstate agency, the Regional Administrator, or any interested agency, person, or group of persons. The request must be filed within the comment period and indicate the interest of the person filing the request and the reasons why a hearing is warranted. Public hearings granted by the Division are conducted in accordance with NAC 445A.238.

The final determination of the Division may be appealed to the State Environmental Commission pursuant to NRS 445A.605.

Proposed Determination The Division has made the tentative determination to issue the proposed discharge permit for a five year term.

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